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Report of the Proceedings

OF THE
Twenty-Seventh Annual Convention
OF THE

North American Bee-Keepers' Association,

HELD AT
LINCOLN, NEBR., October 7 and 8, 1896.

BY DR. A. B. MASON, SEC.

The convention was called to order by the President, A. I. Root, of Medina, Ohio, at 10:15 a.m., in the chapel of the State University, at the close of the students' chapel service. During this service most of the bee-keepers present were seated on the platform, with the Chancellor of the University.

Master Johnnie Heath, the 12-year-old son of H. E. Heath, the editor of the Nebraska Farmer, gave a piano solo, entitled "Ben-Hur March."

Then came the following paper by Hon. E. Whitcomb, of Friend, Nebr., on

Importance of Watering in the Apiary.

Many bee-keepers have entirely overlooked the importance of bringing water into the apiary and thus allowing the bee to search for this much-needed article as best she can, and usually at a great loss to the colony, especially during the warm days in winter and early spring. Like the farm or dairy, it is a close attention to the small items that pays best, and negligence in the apiary is just as prolific of losses as when applied to any other industry. Many of us as bee-keepers do not consider the important uses to which water is applied in the apiary, or the losses resulting from a neglect to fully and carefully supply it.

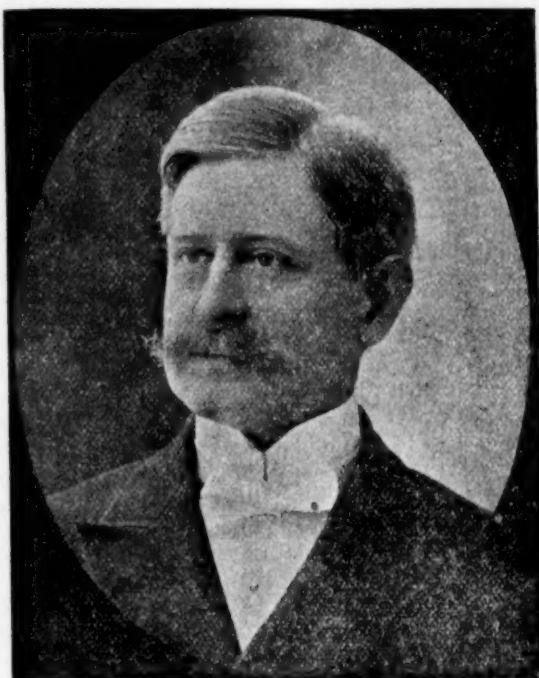
The necessity of water by the honey-bees is to dissolve honey which sometimes becomes candied in the cells, and in brood-rearing they can make but little progress without an abundant supply of water. In early spring, when compelled to go long distances or to secure a supply from hydrants, tanks, brooks or drains, the losses will be beyond comprehension, and the careful apiarist is fully aware of the value of these little water-gatherers at this season of the year. He could well afford to lose four times their number a month or two later on. It is apparent that many cases of so-called spring-dwindling is traceable to the want of water of the proper temperature supplied at convenient places in the apiary.

The advantages of providing water for the bee is, first, to avoid the disease called thirst; second, when allowed to forage away from the apiary they obtain, oftentimes, that which is impure and of so low a temperature that it is injurious to the delicate organism of the bee, and it becomes chilled and cannot return to the hive.

To obviate these difficulties I bring the water in close proximity to the colony, in all its purity, and in a condition of temperature best suited to meet the requirements of the delicate form of the bee. Thus she may secure an abundant supply on making the shortest possible journey to and fro, and also at a temperature even warmer than the surrounding

atmosphere. Many of us have taken great pains in locating the apiary to secure the most sheltered point, where the chilling winds of spring may be the least liable to reach them, and at the same time have allowed our bees to wander out perhaps a mile into the cool currents of air in quest of water, perchance sipping the water from tanks or streams almost ice cold, and yet our colonies wintered fairly well, but we complain of losing a great per cent. by spring dwindling, and giving the matter a little thought, water had the most to do with our difficulties.

To avoid this almost entirely, I have adopted the plan of supplying an abundance of pure drinking water in easy access



Chancellor McLean, of Nebraska State University.

to the colony. To accomplish this as effectually and cheaply as possible, I use the one-half gallon fruit-jar, removing the screw top and rubber (any tight vessel will answer equally as well), and taking an inch board from four to eight inches square (the size is immaterial); now with a small gauge or a common pocket-knife cut a groove diagonally across the block nearly from one corner to the opposite one, taking care not to cut the groove quite to the corner. The center of this block may be cut out to suit your fancy, and may be turned if so desired, and you have an excellent and cheaply devised watering apparatus.

Now fill the jar with water, placing the block over the mouth of the jar, invert the whole, and set in convenient places or desired points in the apiary. The points I claim for

this device are its simplicity and cheapness, and after the breeding season is past, and there is little need of watering, the jar is of as much utility in the kitchen as it was last year while the good house-wife was putting up the winter's supply of fruit.

Again, when the weather is so mild that the bee can fly in quest of water, the sun's rays shining upon the water through the inverted jar, warms its contents quickly, and the bee gets a supply without being chilled or a failure to return with the much-needed water or even a danger of wet feet. To avoid the difficulty of readily attracting the bee to its new watering



Hon. E. Whitcomb, Friend, Nebr.

place, I would recommend slightly sweetening the water in these jars for a day or two, and everything will move on smoothly afterwards.

So far as our observation has gone, during the height of brood-rearing, and taking no note of evaporations, five well-stocked colonies will use the majority of one of these jars of water daily.

Thus the careful, far-seeing apiarist will be able at once to see the importance of watering in the apiary, and also of lessening the flight to and fro, and assuring its purity and temperature best suited to the delicate organism of the honey-bee.

E. WHITCOMB.

After Mr. Whitcomb had read his paper, he said he had a jar with him with which he would like to illustrate his method of watering, it having been illustrated in the institute work of the State. He said:

"I water my bees in the most crude manner possible, by taking a quart jar, fill it with water, invert it and set it on a block about eight inches square, in which you will see grooves are cut. Enough water seeps out to afford the bees drink. Mr Davidson, of Omaha, desired me to come to see him. I went, and together we looked over his bee-yard. I found he had chosen a very good place for his apiary; the man declared as we went along that his bees were not there. It was sheltered where his apiary was, and it was warm where we were, but they must have water. He went to the hydrant and found them there, where they got the cold water and could not get back, and he said he had lost many of them. After this experience, he got a few jars, and has since said that his bees were doing finely. A few months ago I visited him, and found him delighted with his new plan."

Pres. Root—You do not tell of the gallon jar, but only of the quart.

Mr. Whitcomb—The size is immaterial.

Mrs. A. L. Amos, Coburg, Nebr.—I would like to say that we must not depend too much upon the jars. I had quite a number, and they will break.

Dr. C. C. Miller, Marengo, Ill.—Do you keep these jars going all the time? We don't need as many jars in the fall as we do at the time of breeding. The bee must have water in order to carry on breeding, and many of them never get back if they encounter some cold wave.

L. D. Stilson, York, Nebr.—I use hotbed sash to save the lives of my bees. I set the glass up so that the rays of the sun will reflect upon the jars, and I find this adds to warmth and to saving the life of the bee. Two hotbed sash will cover a dozen jars or more.

Rev. E. T. Abbott, St. Joseph, Mo.—Cannot tin cans be used?

Mr. Abbott's question was answered in the affirmative.

J. H. Masters, Nebraska City, Nebr.—I have always watered my bees, but I have a different plan. I have what we call a goose-neck hydrant. This is a pipe we use, and we can run off the water at any time. I use an old stove bottom, put in some hay or straw, and then set it under the hydrant and turn it on so that it will just drip. I then set it where the sun's rays can strike it, and it gets warmed up. This is the best plan for watering that I have ever tried. I am satisfied that the only reason that I have never been troubled with spring dwindling of bees is the fact that I have always kept my bees watered. I notice that the bees prefer cool water; they have been seen in great numbers around the drippings from the ice-box instead of going to the hydrant; if the days are a little cool they go to the hydrant all the time.

J. S. Lovell, Council Bluffs, Iowa—I was never so impressed with the fact that bees are no exception to the animate nature, as I was last summer when crossing Valley county, this State. I found the bees at the pump; they were there in great numbers, hundreds of them, so we could hardly lead the stock there to drink. We went on farther and nitched; these bees went there and took possession of that water-tub. I shall tell the gentleman to fix to water his bees. I believe they get thirsty and must drink.

T. R. DeLong, Angus, Nebr.—I am interested in bee-work somewhat, and I have been thinking ever since Mr. Whitcomb read his paper that I had neglected my bee-watering in the apiary. My bees went to the water-tank, but the principal reason why I have not adopted that system of watering is the fact that the Little Blue river runs near my apiary, which is protected and well shaded by fruit-trees. I never let the bees out in cool weather, and I don't think I have ever suffered any loss. I shall try this system of watering in my orchard, and have it adopted throughout the community in which I live. I don't think I suffered any loss from a cool current of atmosphere.

Question—How do you keep your bees from flying?

Mr. DeLong—I close the openings. I am real interested in bee-culture; when I hear the bees humming I can usually tell the condition of the atmosphere.

Dr. Miller—I would like to ask how many there are present who make provision for watering their bees? I suppose many don't do anything with this matter.

This question was put; seven watered their bees and four do not water them, others not voting.

Fred Biesemier, Sterling, Nebr.—I make provision for watering my bees, and I would say that I use the jars, and never have any trouble as to losing bees, by their getting chilled.

Mr. Stilson—In regard to watering bees, I would say that my apiary is located in such a manner as to be sheltered on three sides by frame buildings, and a fence on the other side; and 150 feet from my apiary is a pond. I have another pond 200 feet away, and I find that bees watered in this manner go to the nearer place; in going this distance in cold weather many freeze.

Some member arose and said: "I use stone jars holding 5 or 6 gallons, and I think there is no better plan than this."

Mr. Stilson—I have a word to say with reference to the jars being placed in the sun. This is a good plan, as the sun's rays will warm the atmosphere around the jars, and also the reflection of the sun on the jar will warm the water. Some times, in cool weather, I have taken a sheet of glass and put

over the jar so as to reflect the heat on the jar, and in this way I have saved the lives of many of my bees.

Mr. Abbott—I do my chickens a service. I don't water my bees—I turn them in with the chickens. Perhaps some here do not know that chickens drink—I know they do. I use wooden boxes about 2 inches deep and 12 inches square; these boxes were made for bee-feeders, as they had been coated with beeswax. I set the boxes 6 or 8 inches from the ground, then put a raised cover on the top so the chickens cannot get up and soil the water; in this way both bees and chickens can drink.

A member asked: "How do the chickens like their associates?"

Mr. Abbott—The chickens don't care. Chickens have more sense than some people.

Do they drink together all right?

Mr. Abbott—Yes.

Do you let them roost together?

Mr. Abbott—No, sir; I do not. (Laughter.) This is a very convenient way to water bees, and as I think more of my chickens than I do of my bees, of course I use this method.

Dr. A. B. Mason, of Toledo, Ohio—I water my bees with gallon jars, and salt the water to keep it pure, and put in corncobs or pieces of wood to keep the bees from being drowned.

Following this discussion Mr. L. D. Stilson read a paper on

Some of the Conditions of Nebraska.

To some of you it may seem strange that we should have conditions here which are not found elsewhere; surroundings make new conditions. As you will readily observe by looking at the map, we occupy a central location in the United States. This, of itself, would not create conditions different from other States or localities. But look further and see our beautiful State lying just at the foot of the mighty Rockies, and only a little ways from our western border is the line of eternal snow. Then look to the north, the east, the south, and find us in the midst of the greatest garden-spot in the world, and you begin to realize some of the possibilities the future has in store for us. Here seems to be a central meeting-place for widely-varied conditions.

The pioneer bee-keeper, like the pioneer farmer, on these broad, fertile prairies had to begin his experimental work all over again; he was met by conditions which were untried and of which he knew nothing. The honey-flow was new to him, thousands of acres, rich in flowers, but not a tree or bush in sight, was not at first sight an inviting field for the apiarist. Wild bees were to be found along the Missouri river, along our eastern border. As the settler moved westward he took with him the few hives of bees. These increased equally well, whether located along some stream or whether placed along the high tablelands in the central part of the State. A little study on the part of the master, soon taught him that the flora of the State was a rich field for the honey-gleaners; and that the wind and waters had brought down from the peaks of the western mountains, plants of such hardy nature that ere the frosts of winter had left the ground at their roots, the tops were furnishing honey and pollen for the honey-bee, while species of the same families brought to us from the South or East would be 10 or 20 days later, thus extending the honey-harvest. In this way we find the red cedar, wild plums, wild grapes and wild cherries; these, with many of the small plants, are valuable in furnishing food for building up early in the spring.

When the missionaries first went to a certain race of heathen they found each man had, or was making for himself, an idol. Among the articles carried by the missionaries were some cocoanuts; these the natives soon seized upon as gods ready-made. When we, as pioneers, first came to Nebraska, we did not have to hew out farms from the timber, as in the Eastern States, but we found farms ready-made. But ready-made as they were, like the idolator, we knew not how to grow crops to the best advantage, and to some of us, at least, it is a study yet. We plowed too much land, we sowed too much grain, we planted too much corn, and as a consequence, weeds infested the land, and for several years past the great bulk of our honey has been produced from "heart's-ease"—a plant something like the smartweed of the East. It grows in every waste place, it springs up in every stubble field, and no matter whether it is dwarfed by drouth to a tiny

plant of a few inches, or whether watered by copious showers and grows to the height of a man, it always blossoms full, and is always laden with honey.

It is said that necessity is the mother of invention. Necessity is only putting a man where he is obliged to think and act for himself. Necessity is only putting a man upon his own individual manhood.

Here in Nebraska necessity has put a good many of us where we are obliged to do some good, hard thinking for ourselves, and as bee-keepers it has done us good. Instead of moving our apiaries, as some of our Eastern friends advise, so as to keep near the virgin forests, we continue to plant and to hoe, to reap and to mow, but in our planting we look to a double harvest, learning by study and experience that the tree or plant richest in honey is also richest in fruit, grain or forage, so that not only do we plant for grain or fruit, but for honey as well. We are learning that the best forage clovers make better beef and butter when they are the richest in honey. The fruit-blossoms rich in honey, produce as rich or richer fruits than those which produce none.

Nebraska is to-day a land of groves, planted by the pioneer farmer. Many of these groves were planted with a treble end in view—first a wind-break or screen, second for fuel, and third for their fruits or honey. It costs no more to set trees which serve these three purposes, and the wide-awake tree-planter was not slow to catch the idea.

The climate of our State is such that plants secrete very rich nectar, so that the bee can gather it and after storing in the hive it can at once be sealed over, retaining to a great extent the aroma of the flower from which it was gathered. A few years ago we extracted from one super clean, returning the combs, and in four days we extracted 50 pounds again, nearly all sealed, and weighing 15 pounds to the measured gallon. This was pure heart's-ease, and samples have never shown granulation.

In bee-keeping, as in all other branches of agriculture, we have made serious mistakes. We have profited by some of these, but of others we are still at sea, the compass broken, and the log-book lost.

The winter problem is to us one of great interest. Some seasons our bees will go through the winter with little or no loss, then again under seemingly the same conditions, a single day of wind, dust, and snow will wipe the apiary out of existence. How to avoid these losses we have no certain rule.



Mr. L. D. Stilson, York, Nebr.

Tell us, ye wise men, how to avoid these winter losses, and ye shall be held in grateful remembrance.

As a rule, the bee-keepers of the State have had but little difficulty in disposing of their honey crops at fairly good prices. True, at such centers as Lincoln and Omaha the shipment of Southern and California honey keeps the prices lower than in the interior of the State, and he who forces his honey, be it ever so good, onto an overstocked market, loses by the operation. But the wide-awake, practical bee-keeper who puts up his honey in fine shape and courts the home market of his nearest town, invariably receives good returns for

his honey. As a rule, we have no use for the commission-men in our business. They are of no value to us in disposing of our aparian products. We believe in selling by the producer direct to the consumer, with no interference of middlemen.

As a whole, our Nebraska bee-keepers are students of the text-books on apiculture, and readers of the various bee-papers of the nation. They are attendants at the farmers' institutes and farmers' conventions, and consequently the patent-right shark has poor picking here. Our people do not consider that to buy a farm, township or county right of some new-fangled notion or nostrum is the right road to success in bee-culture.

We have learned long ago that we do not know all of bee-culture; therefore, it was

Resolved, To invite the wise men of the East, the West, the North, and the South to hold this convention here, that we might sit at your feet and learn, not bickering and strife, but in brotherly love explain the systems best in practice by you in the avocation in which we are all engaged.

L. D. STILSON.

As no discussion followed Mr. Stilson's paper, Prof. Lawrence Bruner, Entomologist of the Nebraska State University, gave a very interesting talk on "The Wild Bees of Nebraska," many of which, with the honey-bee, were illustrated on a large map, as were also their heads, tongues and legs.

At the Secretary's request, Prof. Bruner very kindly consented to put his "talk" on paper, and it is as follows:

The Wild Bees of Nebraska.

Incidentally, in connection with the work as taken up, when making observations on the visits of the honey-bee to various flowers, the wild bees have been collected and studied. The present paper is a partial result of such studies.

The title chosen for this paper may have been somewhat misleading to many of those present. They may have thought to themselves, "Why, have we many wild bees in this State? and, if so, where do they live?" That this thought may not remain with them any longer than possible, I wish at once to say that it is chiefly of other than the honey-bee that I am to talk.

Unless one has paid some attention to the study of insects in general, he or she is very apt to imagine that a bee is a bee, a bug a bug, and a grasshopper a grasshopper—that there are several or even many distinct kinds of each of these insects never occurs to him or her. The entomologist, however, soon learns to his sorrow that the variety of insect life is great. He begins to wish that there were less kinds, and that each lacked their particular and peculiar habits—the subject begins to enlarge so greatly.

By a very little work in the direction of collecting specimens of the native or wild bees of this State, we have already gathered close to 200 distinct kinds. Some of these are large and quite conspicuous, hence are known to most of us. Others are very small and inconspicuous, and are unknown even to most entomologists.

All bees are more or less connected with the fertilization of flowers—i. e., they gather and carry the pollen from one flower to another. These flowers among themselves are constructed on very different plans, hence require different methods for bringing about their pollenization or fertilization. It stands to reason, then, that the bees which perform this task must differ one from the other in structure as well as in habit.

Our efforts thus far have been confined principally to the gathering or capturing and naming of these bees, with the result that there already have been brought together in the neighborhood of 200 distinct species or kinds. These belong to at least 37 distinct genera, and possibly to others still unrecognized. It is estimated that by future work in this same direction there will be at least 100 additional forms found to inhabit our State, since our studies in other directions go to show that the State is one exceedingly rich in its flora and fauna. Our birds seem to exceed those of any of our sister States by fully a half hundred kinds. We have more species of grasshoppers than they, and our tiger beetle are double theirs. Our botanists tell us that the kinds of plants belonging to our flora are similarly extensive.

All bees differ from their allies—the wasps—in being anthophilous, or honey and pollen eating, instead of carnivorous. As has already been hinted, our native bees vary greatly one from another in color, structure, size, and habits. This is to be expected when we take into consideration their numbers and the vastly different flowers from which they must obtain their food and that for their young.

First of all, much depends upon the form and length of a bee's tongue, whether or not it will be able to reach and secure the nectar that lies more or less deeply hidden away within the recesses of flowers. Not all bees are equally well equipped in respect to this organ. Some have this organ short and blunt, hence are confined in their search for food to such flowers as have their nectar near the surface. Others have their tongue excessively lengthened, and therefore can obtain nourishment from deeper flowers. Some bees are slender and are thus enabled to creep into flowers where plumper-bodied species could not venture. A few of our bees are solely nectar-gatherers, but most gather both the nectar and pollen. All of them feed their young with either nectar or pollen, or a combination of the two.

The representatives of a few genera are parasitic, living as guests (uninvited) in the nests of hosts that are obliged to work for them for nothing. Cuckoo-like, these parasites linger near the nests of their hosts until the latter has a cell about completed and provisioned, and are away, when they stealthily enter and leave an egg, and are off, ready to repeat the operation when opportunity presents. These parasitic bees are just as particular about their homes for their prospective offspring as are all parasites. To this end they invariably select the nest of some particular host, a given parasite invariably choosing the same species for its host. In this way the careful observer can frequently determine the presence of a particular bee in a given region, although he may not have been fortunate enough to see or take it.

While the hive-bee, or honey-bee, is social in its habits, and contains an additional form (worker) to the female (queen) and male (drone), nearly all of the wild bees are solitary and are without this worker. Only the bumble-bees are thus provided, and here more than one female are to be found in a single colony.

Where the student has so many distinct forms to deal with as he has here, it becomes necessary for him to select sure means for their separation. This has already been accomplished, and it is now comparatively easy for us to locate any bee in the group where it naturally belongs. Some of the characters thus employed are wing venation, presence or absence of spines on the legs, length of tongue, number of joints in the lip and jaw appendages, and the absence or presence in varying amount of hair upon the body or legs of the bee which is to be classified.

Taking up some of our native bees separately, it has been found that about the following can be said of their appearance and mode of life:

The genus *Holletes* is composed of rather robust, hairy, wasp-like insects more or less well equipped for carrying pollen, which they carry to their solitary nests for food for their young. The nests are made in the ground by the female, and are filled cell by cell with pollen, and an egg laid in each when finished. There are probably two broods a year.

To the genus *Prosopis* belong bees with coal-black and naked bodies. These bees are said to fill their brood-cells "with a mixture of disgorged honey and pollen." The cells are lined with a hard cement which is smoothed out with the broad, short tongue, and given the appearance of earthenware. Although not strictly confined to certain flowers for their food supply, they habitually choose strongly-scented ones for this purpose.

The species of *Sphecodes*, also black or black and red bees with comparatively naked bodies, have similar habits with those of the preceding genus. The tongues in these are a trifle longer, and hence their possessors are less restricted in their foraging.

The species of *Halictus* are still more favored in their development of tongue and pollen-gathering apparatus, and accordingly visit more flowers in their season for food for self and young. The genus is very extensive and contains some of our smallest bees, a few of them measuring less than one-thirtieth of an inch in length. Only a comparatively few of the many species found in our State have been named, hence the worker must first see to this important work before he can record any possible special habits belonging to any given form.

Our most brightly-colored bees belong to the genera *Augochlora* and *Agapostemon*, both of which are made up of forms having their bodies in part or entirely metallic green or blue. Some of these also are very small, and are as yet unnamed.

The genus *Andrena* is perhaps the largest one belonging to our fauna, and like *Halictus* is made up of forms most of which are new to science. As shown by the illustration these bees are admirably fitted for collecting pollen with which they provision their nests.

The genus *Nomia* comprises but three or four distinct

specimens related to *Andrena* in habit, but differing much in the structure of the hind legs and antennae of the males. *Eunomia* also belongs near here. It has but two representatives of our fauna.

The genera *Macropis*, *Megacillisa*, *Panurgus*, *Calliopsis* and *Perdita*, with possibly one or two others, are represented by from one to several species each. None of these have been studied with sufficient care thus to warrant our trying to give their habits at this time.

In the genus *Nomada* we have bunched an extensive series of brightly-marked, small to medium-sized, wasp-like parasitic bees. These are loafers that through disuse, possibly, have lost the pollen gathering and carrying arrangements that at one time may have belonged to their ancestors. Living as they do in the nests of different species of *Andrena* and *Halictus*, each with some particular host, there are many species of them.

Another genus of these parasitic bees quite common to Nebraska is *Epeopus*, the various species of which live in the nests of *Colletes*.

Melerta, *Stelis* and *Coelioxys* are also genera of the cuckoo tribe. They impose the caring and rearing of their young respectively upon the members of the genera *Anthophora*, *Osmia* and *Megachile*.

The different species of the genus *Osmia* are usually metallic green or blue, but others are plain black. These bees with several other genera are provided with pollen-gathering hairs upon the ventral side of the abdomen. Some of them nest in the ground, others in wood or the stems of plants, and still others are said to select the deserted shells of snails for that purpose.

Heriades, *Monumentella*, *Anthidium* and *Lithurgus* are allied genera with but few representatives in our State.

To the genus *Megachile*, which is an extensive one, belong the leaf-cutters. These are, for the most part, rather large, robust bees which are very thickly clothed with long hairs. They construct their nests in the stems of plants or in burrows in partly rotten wood, and make the cells of carved pieces of leaves which they cut for the purpose. One species of the genus is especially fond of red clover blossoms, and no doubt does much towards fertilizing them.

One of our prettiest little bees in the State is a member of the genus *Ceratina*. It is bluish-green and has the habit of excavating the pith from brambles, briars and other similar plants. As it is without the pollen-gathering hairs either upon its legs or body, and rather than be a "cuckoo," it feeds its larvae with a semi fluid honey.

The genera *Eucera*, *Mellissodes*, *Xenoglossa*, *Synhalonia*, and *Diadasia*, are mostly rather large bees in which the antennae of the males are much longer than in the females. The females are usually supplied with pollen-brushes. Quite a number of species are to be met with in our State.

Emphor, *Habropoda*, *Anthophora* and *Clisodon* are also large bees which are fairly well represented here.

The carpenter-bee, *Xylocopa*, is also one of our wild bees. This is the large blue-black and yellow bee that makes its nest in holes made by itself in solid wood.

Of course *Bombus*, to which belong our various bumble-bees, is rather well represented here; and almost every school boy or girl can tell of more than one thrilling experience that he or she has had with them.

The genus *Apathus*, which is represented by three species that live asinquilins in the nests of *Bombus*, is interesting. These bees are very simple in appearance to the bees with which they live as invited guests, or not, as the case may be.

Lastly, among the native or wild bees of Nebraska can be included the honey or hive bee. LAWRENCE BRUNER.

How many varieties of bumble-bees have we?

Prof. Bruner—I think we have ten in the West, in the East four. The bumble-bee lives along the Rocky mountains. The western portion of the State has more varieties than the eastern.

Prof. Bruner, what is the size of our Nebraska bees?

Prof. Bruner—They go from the largest bumble-bee to a bee that is very small indeed—about $1/30$ of an inch.

What kind of a bee is it that visits the maple trees?

Prof. Bruner—These are called the leaf-cutting bee; they are smaller than the bumble-bee. There are leaf-cutting bees which make holes in the center of partly decayed wood. These holes are about $1/4$ inch in length and $1/8$ inch in diameter. These bees cut the pieces with their jaws. Their jaws work like scissors.

Mr. Masters—I have seen bees work on rose leaves, but I did not know what kind of bees they were.

Prof. Bruner—Some bees work on the leaves of the rose and some even on the petals.

Dr. Miller—Professor, what is hibernation?

Prof. Bruner—Passing through the winter in a torpid state, and coming out alive in spring—like the squirrel.

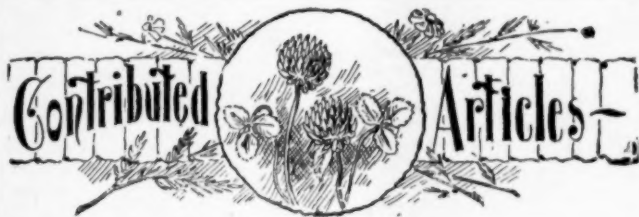
A member—Are there any stingless bees in the world that store honey?

Prof. Bruner—I don't know. I read that there was such a bee introduced from South America, but they found that they could sting a little better than the honey-bee!

Prof. Bruner said that he would bring his collection of bees to the convention room, which he did. It was a very fine display, and attracted much attention.

It was then voted to have the afternoon session at 2 o'clock, and the evening session at 7:30 o'clock. The convention then adjourned till the afternoon session.

(Continued on page 689.)



California Bee-Keeping Notes.

BY PROF. A. J. COOK.

Mr. H. Levering, one of the able bee-keepers of Southern California, and editor of the bee-department of the *California Cultivator*, sends me three flowers which he wishes identified. He says that they are visited very generally by the bees. The plants are, 1st, *Senecio douglassii*, a very common shrub of the composite family, which is in bloom from early June to winter. This is a near relative of the thistle and common star thistle (*Centaurea*), common East and in California. Like nearly all California plants it is in bloom just about with the wild buckwheat, *Eriogonum fasciculatum*, and continues like that famous bee-plant till late autumn.

The second plant was California Virgins' Bower, *Clematis ligusticifolia*. This closely resembles the Virginia Virgins' Bower of the East. I had never supposed, that these were bee-plants. I see that Benton does not include them in his lists. The Columbine, a flower of the same family—*Ranunculaceae*—has much nectar in the pendant tips of its irregular flowers, but it is concealed from honey-bees.

The third plant is *Brickellia californica*. This is also a shrubby composite, and very closely related to boneset or *Eupatorium* of the East. We can well see, then, that it might secrete nectar, though we wonder how any plant can search out nectar or ought else from the parched soils of September in Southern California. It simply shows that individuals can get sweet, not to say be sweet, though all Nature conspire to parch, blight or burn them.

One of my students here—a very bright young lady—has commenced keeping bees. She has taken off two supers of sections even in this dry season.

That article of Dr. Howard's, in a late *American Bee Journal*, on a "New Bee-Disease," is worthy of the author of that excellent treatise on "Foul Brood."

The newspapers state that Mme. Modjeska has an apiary of over 600 colonies of bees on her ranch in San Diego county,

and that she sells a large amount of honey each year. The honey is all from white sage, and so of finest quality. The writer has often passed through Modjeska, on his way to San Diego. The region is excellent for bees. But if Mme. Modjeska gets a large crop of honey such seasons as the present and that of 1894, it must come from her honeyed words.

Claremont, Calif.



The Preparation of Bees for Winter.

BY HON. GEO. E. HILTON.

In most localities the month of September will end the secretion of nectar in the flowers for this season at least. And, as successful wintering depends largely on properly preparing the bees, I shall recommend that preparation at once.

Perhaps some of them need no attention at all, some will be found with insufficient stores, others may have more than they really need, but in order to learn their condition we must go through our apiaries and examine each colony and make a note of their condition, that if there is sufficient honey in the yard to winter all or to give each colony not less than 25 or 30 pounds, we must equalize by taking from the heavier and exchanging combs with the lighter, thus equalizing them; but should there not be honey enough in the yard we must feed.

The above estimate I think will hold good for either outdoor or cellar wintering; it is claimed that bees consume less stores wintered in the cellar than those wintered on the summer stands. This may in a measure be true while they are in the cellar, but it is just as true that they consume more stores during the spring months and changeable weather than those protected in the double-walled hives, making one just about offset the other. In case I find myself compelled to feed, and I usually prepare for this emergency, I prefer to feed by removing combs that have little or no honey in them and replace with combs well filled and capped over in the earlier part of the season.

In the absence of these my next choice is extracted honey. In the absence of both we must resort to sugar syrup, and while bees winter well on syrup made from pure granulated or confectioner's sugar, I prefer the honey, but, in feeding either, we must resort to some kind of a feeder, especially if the bottoms of our hives are not perfectly tight.

For winter feeding, or rather feeding for winter, I know of no feeder I like as well as the "Miller feeder;" this is about the size of your comb honey super, and is set upon the hive in the same manner. The bees go directly from the center of the brood-nest into it, and it is so arranged that the bees cannot get above it or daub themselves with the feed.

After determining the amount the colony needs, one of these can be set on and the required amount poured in at one feeding, as it will hold 30 pounds of honey or syrup. As my hives all have tight bottoms, I frequently raise the front of the hive two or three inches, and just before dark pour in at the back end of the brood-nest three or four pounds at a time. As this will all be stored in the combs and everything cleaned up before morning, there is no danger of robbing. Should the honey thus fed be very thick, I should thin it with a little hot water, as the bees can handle it much better and faster if it is thin and a little warm.

In preparing sugar syrup, make it just as it is made for table use, being very careful not to burn it or it will surely kill the bees. Don't put off this feeding until too late, as it is very essential that the bees should have time to thoroughly ripen and cap it over. After your feeding is done remove everything of a non-porous character, and place next to the bees something that will allow the moisture to pass off. A piece of woolen blanket, a piece of old but clean carpet, or even a piece of burlap will answer nicely. Then put on a cushion or pillow filled with clean wheat chaff or cut straw, and leave

them thoroughly alone until next spring, and you need have no more fears of their wintering well than of a flock of sheep that are given proper attention. If you winter bees in the cellar, treat them in the same manner, and leave the hive cover off. Put them in the cellar between Nov. 1 and 15, and all be well.—Michigan Farmer. Newaygo Co., Mich.



Unfinished Sections—Removing the Honey.

BY F. A. SNELL.

At the close of the honey season, when a part or all the bees are run for comb honey, there will be many unfinished combs, or those only partly filled with honey. Some may be capped partly over, while some will be partly filled, but no sealing done. From some cases quite a portion of complete combs may be found, and these should be cleaned of propolis and crated for market. Those not finished may be left in each case until all complete sections from the hives have been removed from the cases and crated to sell. Then with the honey extractor the honey from the unfinished sections may be removed. Two shallow frames of about four or five inches in depth with a bottom, on which the sections may rest, are hung in the revolving basket of the machine. The shallow frames should be about 2½ inches in width, and one hung in on either side so the face of the combs may be next to the wire screen.

A honey-knife, the blade of which is about three inches long, and having a curved handle, is just the thing for this work. The combs to be uncapped are held with the left hand on the frame over the uncapping can, and with the knife the cappings are removed and the section set in the extractor. Four or more can be emptied at one time. These are then placed in a case, cleaned of propolis, and more emptied and placed with the others emptied. When a case is full, it is placed to one side, and so on until all are completed.

The propolis, if not previously done, should be scraped off each section before placing in the case. The honey should be strained through a thin-cloth strainer, and placed in the can or barrel. This work should be done as soon after the honey season closes as is convenient, and while the weather is yet warm, for the honey is harder to remove when cool. The bees will also clean up the combs much better when warm. One or two cases of sections can be put on each hive in the yard just before sundown, and will be readily entered and all honey slicked up by the bees, and no excitement occur.

When cleaned of honey, the cases can be removed from the hives by use of the bee-escapes, or during a cool spell, when no bees are in the cases, and stored in the honey-room, all ready for the next season's use; and when placed on the hives, they will aid in the start in storing surplus. When no extractor is at hand, the unfinished combs will be cleared of honey often by placing them over light colonies, or those short of stores, but it is not certain. The plan given is sure and systematic.

Milledgeville, Ill.



Cleansing Pollenized Brood-Combs.

BY F. A. GEMMILL.

As a rule, nearly all apiarists sooner or later find themselves supplied with a super-abundance of brood-combs containing more or less pollen, the quality or quantity being such that it is not desirable to again return them to the bees. To those who may desire such combs relieved of their contents, I may here state that I have succeeded to my heart's content, and herewith give the method so that others having the same facilities may follow that practiced by myself.

The generally adopted plan heretofore used was to first soak the combs in water for a few days, and then throw out the water-soaked pollen by means of the honey-extractor. In order to force the air out of the cells so that the water would find its way to the bottom, the combs were held over some

large vessel (I used a large square tin uncapping-can), while yet another vessel containing a quantity of water was close at hand. A small corn-broom or whisk was dipped into the water and swished or thrown over the surface of the combs, they being held at an angle of about 45° during the operation. As soon as thoroughly filled they were set side by side in the uncapping-can, when it was filled with water so as to completely cover the combs, the same being held in position by having a board and large stone placed thereon, and allowed to remain thus for 36 or 48 hours or more if desired.

The above method has been practiced by myself in the past, but a more expeditious and much more satisfactory plan has been used of late, and any one having the advantage of a town or city water-works system I would certainly recommend its utilization for such a purpose. The mode of procedure in this case is the same as just outlined up to the time of the applying of the water to the surface of the combs, but instead of whisking it into them a nozzle is attached to the water-works hose, capable of throwing a fine stream or spray, that will cover the surface of the comb, five or six inches in diameter, every cell inside of that compass being thoroughly drenched to the septum with such force as in some instances to throw out the dried pellets of pollen, which are sometimes seen in such combs, almost instantaneously; the filling and washing out of a whole comb being accomplished in a very few seconds.

The same method in regard to the saturating of the solid pollen is carried out with all combs not thoroughly cleansed by the first spraying, and in 48 hours the stream or spray is again brought into requisition, this time, however, before the combs have been revolved in the extractor, as the stream, when directed onto the water-soaked combs, forces anything and everything contained in them to make a hasty retreat, leaving all as clean and sweet as if new.

Nothing now remains but to give the cleansed combs a few turns in the extractor to get rid of the remaining water they may contain. A wire-cloth screen, such as is used when shipping or removing bees to "fields anew," is now laid on two pieces of 2x4 scantling, and the hives containing seven combs in each, and perfectly spaced, are tiered five or six stories high with another screen on top so that a current of air can pass through and thoroughly dry them.

The above plan was so satisfactory that I was almost sorry when it was finished, indeed my son who assisted me in the work (he being an awfully lazy fellow, like myself), remarked that he never saw me like to boss a job so well before. You know I could sit down to it while he had to stand up and run the extractor.

I will conclude by saying that the combs treated as stated were all wired brood-combs, four years old or thereabout, but I see no reason why, with care, unwired combs could not be treated in like manner. For cleansing combs containing small quantities of sour honey, which sometimes accumulates if left too long unoccupied by the bees, as they were last season (I not having swarms to hive them on), the spray is a capital way of making them sweet and clean, and also for cleaning the basket of the extractor.—Canadian Bee Journal. Stratford, Ont.



Comparison of Section Comb Foundations.

BY HON. R. L. TAYLOR,

Superintendent of the Michigan Experiment Apiary.

Comb foundation bears about the same relation to the apiarist as commercial fertilizer is to the farmer who is compelled to use it. In each case the quality of the article has much to do with the success and prosperity of the class using it. It is of the utmost importance, consequently, that purchasers be informed, insofar as may be, of the character of the goods offered for sale by different dealers, a condition which results not only in present safety to the purchaser, but also (and this is perhaps even more important) compels manufacturers continually to make every effort to keep the quality of their product at the highest possible point. It is therefore deemed desirable that the experiments heretofore made with comb foundation should be repeated, and this has been done during the season of 1896.

It is all the more important that these experiments should be continued, because new methods are from time to time being learned and practiced in the manipulation, and it is of the highest interest that it be known if possible whether the methods affect the product favorably or otherwise. During the past year, especially, there has been a marked change in methods by the adoption by our leading manufacturers of the Weed invention. This is a machine the most important feature of which seems to be the contrivance by which melted wax is made into sheets of any length by being passed between

cylinders. The immediate object of the present experiment was to test the quality of foundation made by this new process.

As a basis for comparison I made some foundation on the Given Press, out of wax carefully selected for its purity, color and favorable texture, the effort being directed to the selection of wax known to be most acceptable and most readily worked by the bees. The samples compared were three, one from the largest manufacturer in this State, M. H. Hunt, which was made by the method heretofore in vogue; and the other two respectively from the two leading manufacturers of this country, if not of the world, the A. I. Root Co. and Chas. Dadant & Son, made by the new process. One case was devoted to the three kinds, that is, each case of a size to contain 36 sections 9-to-the-foot was filled with sections one-half of which contained one of the above three kinds and the other half the Given foundation. The two kinds were placed in the case alternately without separators, the presumption being that those containing foundation worked soonest and most readily by the bees would at the finish contain more honey than the others.

For the benefit of those who have not pursued the reports of former experiments, it should be said that it is deemed very material to the success of an experiment of this nature that the sections employed be about nine-to-the-foot or $1\frac{1}{2}$ inches wide, for the reason that this width approximates very nearly the space which the bees like best to allow each comb. To be exact, this space is somewhat less than the bees use on an average, but a departure on that side is desirable, as appears if the difficulty encountered by the use of sections that are too wide is considered.

I found by actual trial, if two kinds of foundation for one of which the bees have a decided preference, are disposed in a case in alternate sections, having each a width of nearly $1\frac{1}{2}$ inches, or 7-to-the-foot, that at first the bees work out the preferred foundation much more rapidly than they do the other, and continue to do so until the resulting comb is of the thickness which the bees prefer, and must have for use in the production of brood; and that when this point is reached, their work on it is, to some extent, suspended, and an effort made to bring up the thinner comb from the poorer foundation, so that, with such sections, the preferences of the bees defeat the object of the experiment which is to have them deposit honey in the two classes of sections in proportion to the estimation in which they hold the two kinds of foundation, uninfluenced by their ideas of propriety on other points. But the use of sections 9-to-the-foot meets the required condition, for, unless one of the foundations is execrable indeed, the comb from the better one is not likely to reach the desired thickness before the available space is all occupied.

The results of the experiment appear in detail in the following table:

| Make. | Size of fdn. used—inches. | No. to the pound. | No. of feet to the pound. | Wt. of $\frac{1}{2}$ case of honey from each kind of fdn. | Per cent. of excess of that made from Given fdn. |
|--------|------------------------------------|-------------------|---------------------------|---|--|
| Root | $3\frac{3}{4} \times 3\frac{3}{4}$ | 112 | 11.3 | lbs. oz. | |
| Given | $3\frac{3}{4} \times 3\frac{3}{4}$ | 116 | 11.3 | 11 9 | 2.16 |
| Hunt | $3\frac{3}{4} \times 3\frac{3}{4}$ | 128 | 12.7 | 10 15 | |
| Given | $3\frac{3}{4} \times 3\frac{3}{4}$ | 116 | 11.3 | 11 5 | 3.42 |
| Dadant | $3\frac{3}{4} \times 3\frac{3}{4}$ | 128 | 12.5 | 9 14 | |
| Given | $3\frac{3}{4} \times 3\frac{3}{4}$ | 116 | 11.3 | 10 1 | 1.89 |

In each case the Given foundation, as generally heretofore, shows a superiority, but in a greatly reduced degree.

The sample from Hunt, whose foundation has heretofore, in this kind of experiment, stood at or near the head, loses its place, though on the whole it compares more favorably with the Given than in the test of a year ago.

The showing made by the New Process foundation is very favorable indeed—a very gratifying fact, since the increased facility in manufacturing gained by the new method will have a strong tendency to decrease the price of the product.

It is another matter for congratulation that the samples of foundation used in the present experiment approach uniformity very much more nearly than ever before.—Review.

Lapeer, Mich.

THE AMERICAN BEE JOURNAL

GEORGE W. YORK, Editor.

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EDITORIAL COMMENTS.

The Chicago Honey Market is still being over-quoted by certain commission firms who evidently find it difficult to get any honey at all. In a private letter dated Oct 9, one of them quoted 15 to 16 cents for "white, choice to fancy" comb honey, when we could then, and can yet, get the best comb honey here for 13 cents per pound. Don't allow yourself to be induced to ship to any firm that over-quotes prices on honey.

What Have You Learned the past season? The longer evenings will soon be here, and you will then have time to write out the results of your experience and the experiments of the season just ending. As you have been benefited by what others have written, why not return the favor by describing the new and helpful kinks that you have discovered?

Remember, the Bee Journal is kept up for the purpose of interchanging ideas on all aparian subjects. It is perfectly independent, is run by no clique, is fearless for the right, and against the wrong. In a word, it is here to do its utmost to aid bee-keepers and place the industry of bee-culture on a higher plane. It is your paper, and its columns are open always to the best information to be had relating to bees and their profitable management.

Lincoln Convention Comments.—We hardly know where to begin to comment upon the recent meeting of the North American Bee-Keepers' Association held at Lincoln, Nebr. Perhaps it will be just as well, however, to begin at the start, and say that we left Chicago Monday night—just one day sooner than we had expected to go. Editor Ernest R. Root, of Gleanings, was our genial, and very congenial, traveling companion from first to last. We were together five nights and four days on the round trip.

We reached Des Moines, Iowa, about 8 o'clock Tuesday morning, where Hon. and Mrs. Eugene Secor, of Forest City, joined us. Messrs. Jos. Nysewander and James Cormac, two local bee-keepers, also met us for a few minutes on the train at Des Moines, but did not go on with us.

At Atlantic, Iowa, Mr. W. C. Frazier got aboard the train and went on to the convention, also returned with us to that point. Mr. F. is a hustling farmer bee-keeper, does the work of about two ordinary men, and seems to keep healthy and well. Perhaps the pound of honey he said he ate daily, helps to sustain his muscle as well as avoidrupois. He is interested in sheep, bees, poultry and strawberries—of course the finest varieties of each.

We reached Lincoln at 3:35 p.m., and not finding a delegation of Nebraska bee-keepers with brass band and banners

(!) waiting to receive us at the railroad station, the five of us boarded a carriage and were taken to the "Lincoln" hotel. Leaving Mr. and Mrs. Secor there, the rest of the company went to the University buildings, where we found that kind-hearted, cheerful-countenanced Nebraska bee-keeper—Mr. L. D. Stilson. He was accompanied by Mr. H. E. Heath, the busy editor of the Nebraska Farmer, which, by the way, is published in Lincoln.

Dr. Miller and A. I. Root arrived at about 5:30 p.m., Tuesday, and Dr. Mason the following morning. These three, with E. R. Root and the writer, were assigned to the Lindell Hotel, which is a grand place to stop; the meals are excellent, and all attendants kind and courteous.

Mr. and Mrs. Secor were very fortunate in being sumptuously entertained at Chancellor McLean's delightful home, where they were made to feel as if regular members of the family.

Before going any further, we want to say that never before have we met a man who holds so high a position as does Prof. McLean (being Chancellor of the great Nebraska State University), who was also such a genial, generous and kindly hearted man. Why, he was simply "one of us" all the time, and won the admiration of the whole convention by his interest in us all and our meetings. It is indeed a pleasure to show our readers the Chancellor's pleasant countenance (see first page), and to inform you that he is now an honorary member of the Association. We also had the privilege of meeting Mrs. McLean, who we felt was in every way her honored husband's equal.

It would be impossible to touch upon every incident of the convention in one installment of comments, so we will extend them through several numbers of the Bee Journal.

But before closing for this time, we want to refer to Prof. Lawrence Bruner and his interesting talk on bees. He has charge of the entomological department of the University, and we are sure it is in good hands. We were told that the Professor is a born entomologist. When but a child he was incessantly after all kinds of bugs, and wanted to know, you know, all about them. We think he found out, or else he would not be in his present responsible work. For 13 years Prof. Bruner occupied a position in Washington, D. C. He is a pleasant speaker, and held the attention of the convention closely when delivering his lecture on "The Wild Bees of Nebraska." He did not wholly confine himself to the bees of that State, as will be seen when reading his address as it appears in the regular report of the convention proceedings.

Next week we will try to give some glimpses of the convention and its members, as well as a few side lights that helped to enliven the whole.

United States' Annual Honey Crop.—Editor Root, of Gleanings, has several times made an effort to get at the amount of comb and extracted honey produced annually in the United States. Finally, he thinks he has succeeded in getting somewhere near the correct estimate. In Gleanings for Oct. 1, he has this editorial in regard to this subject:

Some two years ago I made an effort to get the manufacturers of section honey-boxes in this country to make a report of their output to Dr. C. C. Miller. My idea was that, if we could get all of them to give to him the number of sections they had made during the calendar year, we could make a sort of estimate on the amount of comb honey produced annually. Still better, if manufacturers would give their average annual output for a period of ten years to some one person, that person could figure very closely on the average annual amount of comb honey produced during that period.

Two years ago, when I tried to carry out this scheme, one of the large manufacturers refused to give their output. The consequence was, I had to give up my pet scheme for a time. But this year I have learned approximately the number of sections that were made in the United States during the past year. Making a liberal allowance for the fact that sections

are under weight, so far as the amount of honey they hold, it appears that the amount of comb honey produced during the year in the United States is somewhere about 25,000,000 pounds; and if there is as much extracted honey produced as comb, then the total amount of honey produced annually in this country would be about 50,000,000 pounds, or 25,000 tons. While this estimate may not be strictly accurate, it is far better than the rough guesses that have been made from year to year, and far more accurate than the government reports.

Our stenographer thought I ought to deduct something for sections on hand, not filled with honey. There were thousands (and we might say millions) of sections of last year's output left over. These, by the law of averages, would balance the number left on hand of this season; but this year the number left over will be less than last, because, as I have shown, the season has been better.

According to the foregoing, there is 50,000,000 pounds of honey produced annually in this country. Suppose we say that its average value is 10 cents per pound (and that is sufficiently high, we think), or \$5,000,000. If that be true, then the \$20,000,000 that some enthusiast estimated nearly a year ago was about four times too high. Still, it is a difficult thing to get at the right figure in a matter of this kind. There is so much chance for error; but we think that an estimate of \$10,000,000 would be quite ample to cover the needs of the case.

The Southwestern Wisconsin bee-convention was held at Wauzeka, Oct. 7 and 8. The officers elected were: President, N. E. France, of Platteville; Vice-President, Thos. Evans; Secretary, F. L. Murray; and Treasurer, J. W. Van Allen.

After much discussion on marketing honey, the convention voted to sell next year's honey crop through a member of the association, and Mr. N. E. France was selected for the purpose.

The President exhibited a large picture frame containing 75 portraits of prominent bee-keepers, the most of them having been clipped from the American Bee Journal, Gleanings and the Review.

We expect soon to be able to give a full report of the proceedings.

Geo. T. Wheadon & Co. Again.—Mr. Dana Twining, of Frankfort Station, Ill., has had some correspondence with the would-be honey-commission firm of Wheadon & Co., of this city, as will be seen by the following:

EDITOR AMERICAN BEE JOURNAL—

Dear Sir:—Some time ago I received a circular from Geo. T. Wheadon & Co., of Chicago, giving quotations of honey, and later on I received a letter from them requesting a reply. They wished to know about the prospect of obtaining honey in this vicinity; they would send a man here if I had enough to be worth while.

In my reply I wrote them that last year I received circulars from C. R. Horrie & Co., but did not ship them any honey; I referred them to an editorial in the American Bee Journal of Sept. 10, 1896, and I did not intend to ship Geo. T. Wheadon & Co. any honey this year. I also referred them to the American Bee Journal of Sept. 24. They wrote me a reply, which I enclose, not because they request it. You can see that Geo. T. Wheadon & Co. are not a legitimate firm. If they were, they would have written me a different reply.

Yours truly,

DANA TWINING.

Frankfort Station, Ill., Oct. 12.

The letter referred to by Mr. Twining, which he received from Geo. T. Wheadon & Co., of 198 South Water street, is here given in full, excepting, of course, the lithographed letter heading which mentions honey as a part of their business:

DANA TWINING, Frankfort Station, Ill.—

Dear Sir:—Your somewhat sarcastic letter under date of Sept. 28, is at hand. We judge from the tone of your letter that you put your faith to the editor of the American Bee Journal. We will inform you right here that he does not amount to much in Chicago. He is endeavoring to make his readers think that he is a prominent personage, but he is

not known among our leading business men. From the tone of your letter, we judge that you have never seen him. You should come to Chicago and see him once—it will be well worth your carfare. It would be as big a sight as to attend the World's Fair. You might send him this letter. We would consider it a great favor, as he does not hear from us in a direct way, we doing no advertising with him.

Very truly yours,

GEO. T. WHEADON & Co.

E.—Dictated by G. T. W.

It is a real pleasure to us to publish the foregoing correspondence, for it shows that our denunciations of fraudulent commission firms is having the proper effect. Wheadon's letter reminds us of the saloon people's talk about prohibition laws not prohibiting, and yet they spend time and money in trying to break down such laws or to prevent their enactment. 'Tis simply a case of "sour grapes."

So far as we know, Wheadon has never seen us, and he knows better than to attempt to advertise in the Bee Journal; and as for our "not amounting to much in Chicago"—well, we are entirely satisfied if we can only be known well enough among bee-keepers to prevent them from shipping their honey to such parasitic firms as Geo. T. Wheadon & Co., C. R. Horrie & Co., and others of their kind.

We want to thank Mr. Twining for sending us these letters, and we trust that others who wish to aid in protecting bee-keepers from being unfairly dealt with, will also forward to us any and every thing that they may receive of a similar nature.

The Toronto Apiarian Exhibit.—The Canadian Bee Journal has this to say concerning the apiarian exhibit made this year:

Never before in the recollection of exhibitors has there been as fine an exhibit of honey at the Toronto Industrial Exhibition, but unfortunately for the exhibitors and for the public generally, the place this year occupied is under the east end of the Grand stand, a position in a remote corner, and away from other exhibits, people expecting to find under this building nothing but lunch counters and dining halls. Again, moving the building each year gives those wishing to see the honey-building and intending purchasers no end of trouble. What bee-keepers and the bee-keeping industry requires is a separate building permanently located, and the position of that building in a location where it can be readily reached. We have said this building is required by the bee-keeping industry, because it must not be forgotten that those exhibiting at Toronto are benefiting bee-keepers generally, because they are drawing attention to honey, and many purchase honey in city stores, through having seen and perhaps tasted it at the exhibition. The large exhibits are all neatly and tastily put up, some of course going to greater expense than others in providing the finishing touches, but all of them a credit to bee-keepers.

"Drawn Combs increase the crop of comb honey 100 per cent., writes L. A. Ressler to Gleanings. When I first read that I thought that Mr. Ressler had been a little extravagant, and it does sound so, but I am not so sure that he isn't pretty near the truth. How much more extracted than comb honey can you produce? That's the question; and drawn comb will enable you to produce as much comb as extracted honey. There is a big field here for experiment and investigation."

The above paragraph was written by Editor Hutchinson in the Review for September. That last sentence sounds queer, for, if we mistake not, it was Mr. H. himself who only a short time ago was saying that he thought bee-keeping, along the line of improvements, had about reached 'the end of the string.' And yet he says, "There is a big field here for experiment and investigation." Must have changed his mind.

HONEY SPONGE-CAKE.—One cupful of honey, one cup of flour, five eggs. Beat the yolks and honey together; beat the whites to a froth; mix all together, stirring as little as possible; flavor with lemon, and bake quickly.

PERSONAL MENTION.

EDITOR R. B. LEAHY, of the Progressive Bee-Keeper, we regret to learn, has been suffering from rheumatism. Why not turn the bees on, R. B.?

MR. A. E. SHERRINGTON, of Walkerton, Ont., one of the Directors of the Ontario Bee-Association, exhibited 32 varieties of apples at the Toronto Industrial Exhibition.

MR. N. E. FRANCE, of Platteville, Wis., was recommended by the Southwestern Wisconsin Bee-Keepers' Association as the proper man for appointment by the Governor as State foul brood inspector. Good choice.

MR. THOS. EVANS exhibited, at the Southwestern Wisconsin convention, some very fine comb foundation, made by his invention for sheeting the wax—sheets wound on a roller of any length and of uniform thickness.

SOMNAMBULIST seems to have taken too much to heart our joking suggestion that Skylark and Sommy should "amalgamate." We see our mistake now. It wouldn't be safe for any one to be "skylarking" around Somnambulist's habitation. Better keep away, "Skyke."

MR. O. O. POPPLETON, of Florida, who has been spending about six weeks in Iowa, called on us last week, when on his way home. He was expecting to visit The A. I. Root Co. before returning to Florida. Mr. P. is a very pleasant man to meet, as well as an old and experienced bee-keeper.

MR. S. J. BALDWIN—a bee-supply dealer in England—is spending a few months at Elizabeth, N. J., for the good of his health. He says:

"The benefits derived from my previous visits to this great country have induced me to come again, and I feel it much more pleasant and certainly more beneficial to my health than doctor's nostrums, to say nothing about the cost."

FUNK & WAGNALLS COMPANY, of New York, have just received a single order from one firm for 100,000 copies of their celebrated "Standard Dictionary of the English Language," amounting at retail to nearly one and a quarter millions of dollars. This is the largest single sale of so large a work ever made in America. Previous to this one large transaction, over 100,000 copies had been issued, and the Company is still receiving many large orders from its subscription agents throughout the world.

MR. EDWARD H. TAYLOR, of Welwyn, Herts, England, gave us a very pleasant call, Monday, Oct. 12. He had been to see the G. B. Lewis Co., of Watertown, Wis., and was on his way to visit The A. I. Root Co., at Medina, Ohio. Mr. Taylor, though but a young man, is successor to Mr. T. B. Blow, who was an extensive English manufacturer of and dealer in bee-keepers' supplies. He uses about 15 tons of beeswax annually for comb foundation, getting most of the wax from the island of Madagascar, off the east coast of Africa.

We took Mr. Taylor to see Messrs. R. A. Burnett & Co., Chicago honey-dealers, and he was much interested in the quality of United States honey, and also in the manner of putting it up for shipment and market.

Basswood Trees from the Seed.—We have quite frequently had inquiries concerning the growing of basswood trees from the seed, and in Gleanings for Oct. 1 we find the following by Mr. A. I. Root, which no doubt contains the very information that many have long desired:

There have been several inquiries in years past in regard to growing basswood seedlings; and we have once or twice had a nurseryman reply; but the impression was left, if I am correct, that the matter was too difficult, and could be managed only by an expert. Well, the basswoods in front of our store, and, in fact, all along the road in front of our dwelling, have been bearing pretty good loads of blossoms and seed for two or three years past. I have several times noticed young basswood seedlings among our vegetable plants; but the boys

who do our weeding were sure to "yank" them out sooner or later. This season I succeeded in protecting one strawberry bed that stands just across the sawed-flagging pavement from the basswood trees. No attempt was made to sow the seeds, mind you. The plants that came up were only from seeds carried across the walk by the wind. I have just counted 35 young basswood trees in a bed only 30 feet long. The tallest one is about a yard high, and as straight as a whip. These vary from a few inches to three feet. They had no attention and no cultivation, except to let them grow among the strawberries. We are just now preparing some beds, and we propose sowing thousands of the seeds, which can easily be gathered by the bushel from the loaded trees. My impression is, they can be grown as easily as or easier than cabbage-plants, for they require no glass and no protection. Of course, it takes a long time to grow them—that is, if you want them two or three feet high. We shall sow the seeds during the present month and up into October as we have beds cleared off. I believe it will be safe to put them in two or three inches deep, in mellow soil. It has been a query in my mind, whether forest-tree seedlings will thrive well on ground fertilized with stable manure; but if I were to judge from those I have mentioned, I think it is just what they want, only that the manure should be old and well rotted. The bed in question has had no manure for something over a year; but previous to that time it was mulched so heavily for strawberries that the soil may be perhaps one-fourth manure, say six inches deep. In regard to distance apart, I would put in the seeds say about four to the inch, in rows five or six inches apart. Should the seed all grow they can be transplanted when they seem to be crowding each other. It may be that they would do better without transplanting until they are several feet high; but I do not see how we can get a perfectly even stand without transplanting. After the first year they had better be put out in the fields, say a foot apart in the row, the rows wide enough to be cultivated with a horse. Where land is cheap, I think they can be grown profitably for the lumber, to say nothing about free bee-pasturage. In regard to the latter, I still believe the basswood tree furnishes more honey to the world than any other one plant known—that is, where it thrives.

A New Binder for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 20 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

The Alsike Clover Leaflet consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

The Names and Addresses of all your bee-friends, who are not now taking the Bee Journal, are wanted at this office. Send them in, please, when sample copies will be mailed to them. Then you can secure their subscriptions, and earn some of the premiums we have offered. The next few months will be just the time to easily get new subscribers. Try it earnestly, at least.

The McEvoy Foul Brood Treatment is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for \$1.10.

The Great Campaign Book offered on page 666, ought to be in the hands of every voter. It shows all sides of the political questions of the day. Better send for a copy of it. Orders filled by return mail.

Now is the Time to work for new subscribers. Why not take advantage of the offer made on page 683?

Question-Box.

In the multitude of counsellors there is safety.—Prov. 11-14.

Swarming With the Queen on Her Bridal Trip.

Query 33—When a young queen flies out on her bridal trip the bees sometimes swarm out with her. Does such a swarm sometimes remain out permanently without returning? And if so, in about what proportion of cases?

Wm. McEvoy—No.

Eugene Secor—I can't answer.

W. G. Larrabee—I don't know.

Mrs. J. N. Heater—Yes, sometimes.

P. H. Elwood—Usually they remain out.

Emerson T. Abbott—They do. I do not know the proportion.

Chas. Dadant & Son—Yes, in most cases the swarm will be lost.

J. M. Hambaugh—I have never been an eye witness to a case of this kind.

J. A. Green—Yes, but I have not known many cases—less than one per cent.

C. H. Dibbern—I don't know, but I think such swarms usually return to their own hives.

Prof. A. J. Cook—I think not. If they go out with her, I think it is to swarm, and not for mating.

Mrs. L. Harrison—They do; and sometimes never return. Little after-swarms, of about the size of a pint.

Jas. A. Stone—I never had such a circumstance occur that I knew of, but in such a case it would depend upon whether another queen got with them.

Dr. J. P. H. Brown—Weak swarms sometimes do not return. If you refer to nuclei, keep them well stocked with bees and brood, and they won't go out with the queen.

E. France—If the queen stays with the swarm, they will never return to the hive. If the queen should get away from the swarm, the swarm would return, and the queen also.

R. L. Taylor—I do not remember a case where such a swarm remained out permanently, but if such swarming out is repeated often, the swarm becomes reduced in numbers.

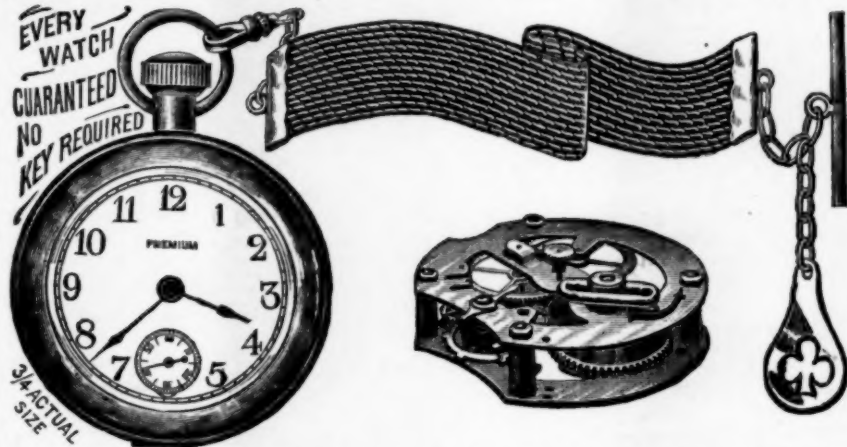
Dr. C. C. Miller—I don't know much about it. If obliged to make a guess, I should say that one young queen in ten takes a swarm with her on her bridal trip, and nine out of ten of these swarms return.

G. M. Doolittle—Yes. Some years, one out of every eight will thus go with the queen. Other years, not one in the whole apiary. With me, all that so go out would stay out permanently, were they not captured by the apiarist.

G. W. Demaree—Yes. Sometimes a small colony with little or no brood will follow out the young queen when she makes her wedding trip, and sometimes they become confused while out, and fail to return home. I have had but few experiences of the kind in 20 years past. It certainly does not often occur.

J. E. Pond—I never knew a case where the bees left and did not come back under the circumstances stated. In

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Now it seems to us here is a splendid chance for any bee-keeper to supply his home demand after his own crop is all sold. Or, why not begin now to create a local honey-trade? Order one 60-pound can first, and start out among your neighbors and friends, and see what you can do. You ought to get at least 15 cents per pound in 5-pound lots, or 50 cents for 3 pounds. Some may be able to do even better than that, though we think that enough ought to be sold at these prices to make a fairly paying business out of it. Give it a good trial. Push it. It may grow into a nice winter's work for you.

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fact, I have never known an instance where a colony left with the virgin queen when she took a bridal trip, and doubt very much that such an instance has ever occurred. I do not say that such has never been the case, but I have never seen proof of it.

Rev. M. Mahin—I have never personally known the bees of either a full colony or a nucleus to swarm out when the young queen came out on her bridal trip. If a colony should do so I would not expect them to return, unless the queen and the bees should get separated, which they would not be likely to do. But this is only my guess.

General Items.

Good Prospects for Next Year.

My crop this year is not very large—about 500 pounds of comb honey from 25 colonies, spring count, and increased to 40. The prospect for another year is good; there will be lots of clover. A year ago it was very dry here, so that clover was a failure. L. M. CUDNEY.

Flint, Mich., Oct. 6.

Appreciated All Around.

I expected my paper would stop soon after my subscription expired, and was greatly surprised to meet it every week as usual, and I was highly pleased, too, as the "Old Reliable" is like celery—the more you get of it the better you like it; and it has grown to be a most intimate friend of mine. I must thank you for sending it right along, and trusting to the honesty of an entire stranger for your pay; although, when a person is trusted like that, he must indeed be a sneaking thief to beat an editor out of his pay. E. B. TYRRELL.

Davison, Mich., Oct. 10.

Good Season—10-Frame Hives.

The past season has been a good one with me. I commenced with 60 colonies, increased to 118 by natural swarming, and secured 3,000 pounds of honey, all of which is clover and basswood. Eighty-five colonies have queens which were reared this year.

All of my bees are in 8-frame hives. I do not like them as well as the 10-frame, having been forced to the conclusion that in this locality bees will winter better and give larger swarms if kept in 10-frame hives. I have tried them both, side by side, but dropped the 9 and 10 frame hives because I had introduced the 8-frame hives in large numbers, supposing that they were superior to the others. I would change back to the 10-frame hive were it not for the cost of doing so. G. F. TUBBS.

Annin Creek, Pa., Oct. 7.

Sweet Clover Cut Down.

I see in the "Editorial Comments" for Oct. 1, that a Wisconsin bee-keeper has a patch of sweet clover growing on his farm, and that he has been ordered by the Weed Commissioner to destroy it.

Well, I am also a Wisconsin bee-keeper (though my post-office is in Illinois), and I have a similar case on hand. I have

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Mention the American Bee Journal.

Bee-Keeper's Guide—see page 685.

some sweet clover growing on my farm, and was ordered to cut it, but not complying, the Weed Commissioner cut it, and I presume he has put in a charge against me on the tax roll, for destroying a plant that I want to grow on my land.

I am a member of the National Bee-Keepers' Union, and wrote the General Manager about it, but he does not seem to want to do anything about the matter; he thinks the way to do is to change the law. I think the case ought to be tried by the Union. It is a subject that all bee-keepers are interested in.

C. H. STORDOCK.

Durand, Ill., Oct. 6.

[We may be wrong in the matter, but we think that the quickest way to get such obnoxious laws repealed, is for the Union to come forward and make a test case of the matter. It is sure to win, and probably only one successful case would be necessary in order to wipe out all such laws in other States. Surely, it is a matter in which every bee-keeper is interested. We hope the Union will yet see its way clear to "take a hand" in all such cases, and push them to a satisfactory settlement.—EDITOR.]

Bees Did Well.

Bees have done well here this year, there being a good fall flow of honey. Comb honey sells at 12½ to 15 cents per pound. There was no honey extracted here that I know of.

G. H. DENNIS.

Weeping Water, Nebr., Oct. 5.

Bee-Hunting Experiences.

I have thought for some time of giving the readers of the Bee Journal some of my experience in hunting wild bees, which has been very extensive, and a thing that I have taken a great glory in. I have in some seasons made it very profitable, especially in that of 1869, when I took a job of working in the timber on Indian creek, Morgan Co., Ill., 12 miles north of Jacksonville. This was the greatest honey season I ever saw. I found a tree close to my cabin, cut it, and put the bees into a large box-hive. I would work in the cool part of the day, making about \$1.00 in the morning, then take a bee-hunt for a few hours, after finding a bee-tree, and as many as three, say from 10 a.m. until 2 or 3 p.m.; then take my axe and make five more railroad ties, for which I got 20 cents each; or cut a cord of wood, for which I got \$1.00. I have often thought I was in the "tallest clover" that season, of any year of my life.

Indian creek was the best stream for the size that I ever saw, for fish. My wife and I would take our hooks and go out on the bank of the creek, and in a few minutes have a fine mess of catfish, weighing from one-half to three pounds. But our good time drew to an end when fall came. We both took the chills; we shook, and we shook, and shookey shookey shook, shuck, until one was not able to give the other a drink; but, as good luck would have it, we had a good old neighbor, by the name of John Chandler, that would always go with me, generally at night, to cut the bee-trees, or rather saw them down, as I had to get a

good many of them in that way. I thought likely the men that owned the timber would not like to be disturbed with the sound of my axe after night, and I felt sure the sound of their shot-guns would not be very agreeable to me!

As I am on this line, I will say that I learned several years ago not to be fooled out of a bee-tree, unless the owner of the land took it to bed with him. In my start at finding wild bees, back in Owen Co., Ind., 40 years ago, I sometimes was beaten by going to the owners of the land and asking them politely for the privilege of cutting the trees. They would oftentimes make a hundred excuses, such as "I have saved that tree to make boards, and could not think of having it cut." Or, "My wife ran those bees into that tree two years ago, and we never marked it." I always noticed that the tree was cut by the party soon after I told them I had found it—no difference how badly they wanted the tree for boards, it was ready for use as soon as I would find the bees! and often I would learn of them getting a large lot of honey.

But I find I have strayed from my Indian creek life, which, by the way, might be interesting to some. What bees I saved of the early ones kept myself and wife from suffering that fall. My old neighbor, Mr. Chandler, would go to market to Jacksonville every week, and I would take time between shakes to go out, pry the boards off the head of a gum, and cut out a bucketful of honey, and send it to town by Uncle John. He never failed to get 25 cents a pound for it.

I would like to tell Mr. Chapman (see page 605) that I saw a man eating brood, and the white fluid running out of the corners of his mouth. I would like to tell what I have experienced and noticed in regard to absconding swarms and the cause of the same. Bees do reason, and I think their reasoning faculties, in many things, surpass almost any other living thing. The present season surpasses any for many seasons in this locality, for honey; and now, on Sept. 19, bees drop at the entrance, loaded down with honey. A. COTTON, Pollock, Mo.

One of the Best Honey-Years.

This has been one of the best honey-years on record for this locality. My report is as follows: Spring count, 12 colonies, increased to 24, and took 800 pounds of comb honey and 750 of extracted. I sold it in my home market at 14 cents per pound. GEORGE ROBY, Chanute, Kans., Oct. 8.

Report for the Past Season.

My report for this year is this: Number of colonies in the spring, 31, increased to 65, with 1,000 pounds of comb honey and 400 of extracted—almost all from basswood. The bees didn't get much from buckwheat, on account of wet weather. G. W. BELL, Bells Landing, Pa., Oct. 9.

Sweet Clover for Honey and Hay.

Our crop of honey has been very good so far, mostly from sweet clover. Bees won't touch alfalfa till sweet clover has done blossoming. I find quite a change in the minds of some of my neighbors. They are beginning to think sweet clover

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is a pretty good thing after all. I have sold some seed to one, and two others are talking of sowing some. It will grow on our poorest land, and make a crop, and choke out all weeds we have in this country, including sand-burrs and cockle-burrs. If it were of no other use it would pay well as a fertilizer. But it is a splendid hay crop, and, in my opinion, there is nothing better for honey. I have about 10 acres seeded down for next year. I put several acres in the corn at the last cultivating, and have a nice stand. You see, by putting it in the corn we have the crop the next season. If sown in the fall it will come up early the next spring, and make a good growth that season, but not seed. I always sow the seed with the hull on.—JOSEPH SHAW, of Kansas, in Gleanings.

Bees Did but Little.

Bees are not doing much this season. I shall not get honey enough to pay for the trouble. I live in hopes of a better season next year. Perhaps the bees will work better under a new administration; certainly they can do but little worse.

JOHN H. WHITMORE.

Minard, Mich.; Sept. 23.

Beginning with Bees.

I bought a colony of Italian bees three days ago, after visiting four or five apiaries at different places. I got them from a farmer 20 miles out of town, and paid him \$3.00 for the whole thing—hive, bees, and about 50 pounds of honey. We closed them in the morning, and brought them to town over rough grounds in a spring wagon. We were about eight miles from town when the entrance came open, and the bees were flying around mad. We unhitched, took out the hive, smoked them with hay which we had in the wagon, and shut them up again, only losing a few bees. Then we started again, and reached home all right.

FRED WIEMAN.

Lawrence, Kans., Sept. 22.

Two Starters in One Section.

The question is continually asked, "Does it pay to put two pieces of foundation in each section?" Yes, sir, it does. I would not use sections with only one piece, even if they were furnished free; for I want and will have my section honey built solid to the sections on all four sides, and can have them so by using sections eight to the foot, and a "Handy" slotted and cleated separator between each two sections, with two pieces of foundation fastened firmly exactly in the center of each. The reason I want this is because such sections of white honey will look "just splendid," and I can ship them a thousand miles without a broken comb, if properly crated. I put a half-inch piece of rather heavy foundation in the bottom, and the top piece wide enough to come within $\frac{1}{4}$ inch of this, and all to be $\frac{1}{4}$ inch from the sides of the sections. I know the order is generally given to fill the sections chuck full of foundation; but I tell you, after much experience, that foundation should not touch the sides of either brood-frames or sections until the bees have drawn it partially out; for if the foundation touches the wood, the bees will immediately stick it fast, whether it is in the right or wrong place.—B. Taylor, in Gleanings.

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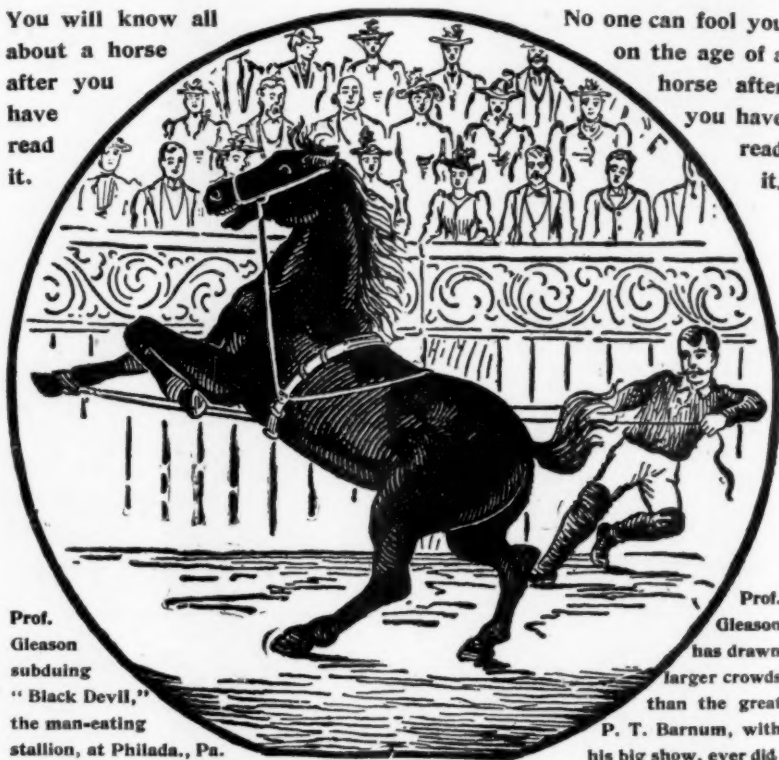
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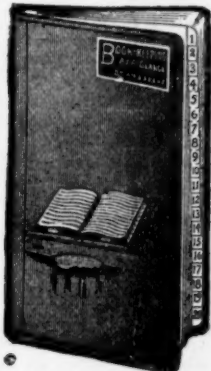
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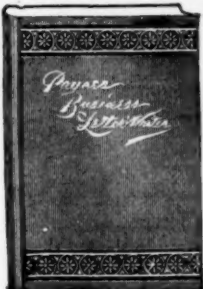
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HONEY and BEESWAX**MARKET QUOTATIONS.**

The following rules for grading honey were adopted by the North American Bee-Keepers' Association, and, so far as possible, quotations are made according to these rules:

FANCY.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb unsoiled by travel-stain, or otherwise; all the cells sealed except the row of cells next the wood.

NO. 1.—All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain or otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "fancy white," "No. 1 dark," etc.

Chicago, Ill., Oct. 7.—Fancy white, 12 1/4 @ 13c.; No. 1, 11 1/2 @ 12c.; fancy amber, 9 @ 10c.; No. 1, 8c.; fancy dark, 8 @ 10c.; No. 1, 8c. Extracted, white, 5 1/2 @ 7c.; amber, 5 @ 6c.; dark, 4 1/2 @ 5c. Beeswax, 25c.

The demand for the past two weeks has been of fair volume, enabling us to close our receipts promptly. We usually have the best trade of the year at this time, and it is also the season when comb honey bears transportation well.

Philadelphia, Pa., Sept. 30.—Extracted, white, 8-10c.; amber, 4-5c.; dark, 3-4c. Beeswax, 25c.

No new comb in this market yet. Old comb cleaned out.

Detroit, Mich., Sept. 30.—No. 1 white, 12-1 1/4c.; fancy amber, 10-11c.; No. 1 amber, 9-10c.; fancy dark, 8-9c. Extracted, white, 5 1/2-6c.; amber, 5-5 1/2c.; dark, 4-5c. Beeswax, 24-25c.

Indianapolis, Ind., Oct. 3.—Fancy white, 14-15c.; No. 1 white, 12-13c. Extracted, white, 6-7c. Beeswax, 22-25c.

Demand is fair for grades quoted, but no demand for inferior grades.

St. Louis, Mo., Sept. 30.—Fancy white, 13 @ 14c.; No. 1 white, 12 @ 13 1/4c.; fancy amber, 11 @ 11 1/4c.; No. 1 amber, 10 @ 10 1/4c.; fancy dark, 8 @ 9c.; No. 1 dark, 7 @ 7 1/4c. Extracted, white, in cans, 5c.; in barrels, 4 @ 4 1/4c.; amber, 3 @ 3 1/4c.; dark, 2 1/2 @ 3c. Beeswax, 19 @ 20c.

Very little honey coming in at present, and the weather is too warm to handle to advantage if it were here.

New York, N. Y., Oct. 9.—Fancy white, 12 @ 13c.; 11 grades, 10 @ 11c.; bu. kwheat, 8 @ 9c. Extracted is in fair demand at unchanged prices. Beeswax is doing a little better, and firm at 24 @ 25c.

There is a fair demand for fancy white comb honey, while off grades, mixed, and buckwheat are rather neglected. Receipts are heavy and stock accumulating. Sales are principally in small lots, and in order to move round quantities it is necessary to make concessions from quotations.

San Francisco, Calif., Oct. 7.—White comb, 10c.; amber, 7 1/2-9c. Extracted, white 5-5 1/2c.; light amber, 4 1/2-5c.; amber colored and candied, 3 1/2-4 1/2c.; dark tye 2 1/2-3c.

With light arrivals and light local stocks there is little chance for prices to fluctuate to any material degree in favor of the buying interest. Inquiry is not active, however, and mostly local. Prices in foreign centers are below the parity of values current here.

Beeswax, fair to choice, 24-27c. There is no lack of demand for choice bright, free from adulteration such being in scanty stock. It is the exception, however, where dark and inferior meets with prompt custom.

Albany, N. Y., Oct. 7.—Fancy white, 12-13c.; No. 1, 11-12c.; fancy amber, 9-10c.; No. 1 dark, 8-9c. Extracted, white, 6-7c.; dark, 4-5c.

The receipts of both comb and extracted honey are very large, and prices are somewhat lower. We have an ample stock of all styles except paper cartons weighing less than a pound.

Boston, Mass., Oct. 9.—Fancy white, 13-14c.; No. 1, 1-12c. Extracted, white, 6-7c.; amber, 5-6c. Beeswax, 25c.

Milwaukee, Wis., Sept. 30.—Fancy white, 14-15c.; No. 1, 12-13c.; No. 1 amber, 8-10c. Extracted, white, 6-7c.; amber, 5-6c.; dark, 4-5c. Beeswax, 22-24c.

New crop of honey begins to come forward. The demand is very poor and quotations almost nominal. Weather is very warm and the consumption of honey is very small. Plenty of fruit, and hence the appetite is satisfied with same in preference. Later on we expect an improved demand for honey of all kinds.

Minneapolis, Minn., Sept. 30.—Fancy white, 12 1/4c.; No. 1 white, 10 @ 11c.; fancy amber, 9 @ 10c.; No. 1 amber, 8 @ 9c.; fancy dark, 7 @ 8c.; No. 1 dark, 6-8c. Extracted, white, 5 1/2 @ 6 1/4c.; amber, 5 @ 5 1/2c.; dark, 4 @ 5c. Beeswax, 23 @ 26c.

The demand for both comb and extracted is very quiet, and for the latter, nominal. The hot weather of the past week or so has checked demand for comb honey.

Cleveland, Ohio, Sept. 30.—Fancy white, 14 1/2 @ 15c.; No. 1 white, 12 1/2 @ 13c. Extracted, white, 6 @ 7c.; amber, 4 1/2 @ 5 1/2c. Beeswax, 22 @ 25c.

There is not very much honey in our market. Selling rather slow. Demand beginning to be a little better. Think trade will be fair in this line this fall.

Kansas City, Mo., Sept. 30.—Fancy white comb, 15c.; No. 1 white, 13 @ 14c.; fancy amber, 12-13c.; No. 1 amber, 11-12c.; fancy dark, 10-11c.; No. 1, 8-10c. Extracted, white, 6-6 1/2c.; amber, 5-5 1/2c.; dark, 4-4 1/2c. Beeswax, 22-25c.

Buffalo, N. Y., Oct. 19.—Fancy comb, 1-pound, 12-13c., occasionally 14c.; No. 2, 8-10c.; No. 3, 4-7c. Extracted, 4-5c. Demand better, and quite a consumptive trade now.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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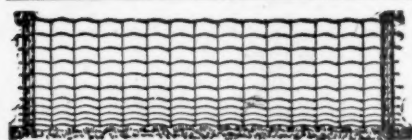
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